Conservation Biology Lab (EBIO324/EBIO524)

Instructor
Cassidy B. Johnson, Ph.D.
Office Hours: by appointment – please email to me to arrange a time!
Email: cbj5145@rice.edu

Meeting Times
Location: Rayzor Hall, 123
Time: Friday, 1PM-5PM

Textbook
No textbook will be required for this course. Required documents and readings will be provided on the course's website.

Course website
Additional readings, resources, or other course documents will be posted on the course's Owl-Space site:
https://owlspace-ccm.rice.edu/portal/site/EBIO-324-524-001-F15

Course overview
This one-credit laboratory course is designed to address an authentic, local conservation issue facing the greater Houston area. Students will be responsible for the project design, the collection and analysis of data, and the dissemination of that data to the project's partners. All students enrolled in EBIO324 must have previously taken or be simultaneously enrolled in EBIO323.

Course objectives
1. Become familiar with using measurements of biodiversity as a metric for conservation practices
2. Learn how to develop habitat survey protocols and collect field data from an urban environment based on standard, field biodiversity techniques
3. Synthesize a summary report for a general audience based on collected data, including recommendations for habitat improvements for restoration purposes
4. Assist in the development of an education tool and/or develop ideas to assist in community awareness of the conservation issue

By the end of the course, you will be expected to:
1. Generate useful information regarding a pressing, local conservation issue that is facing the greater Houston community
2. Be familiar with the basic techniques used in the field of conservation biology
3. Comprehend how to synthesize ecological data for dissemination to a general, non-science audience.

Additional course materials
The instructor will provide the field equipment and reference guides needed for the course. Students will be required to wear closed-toed shoes for all of the fieldwork-related activities. Water, hat, sunscreen, and long pants are also highly recommended.

Course Schedule (subject to change)

The course will meet every Friday in Rayzor Hall room 123 from 1PM – 5PM. On fieldwork days will meet at the classroom and then walk to the field site unless otherwise discussed in class. On some fieldwork days we may meet at the site (please check the schedule posted on the course website to stay updated on meeting locations).

Date	Activity (subject to change)	Location
28-Aug	Introduction; Jamie Gonzales Katy Prairie Conservancy	RZR 123
4-Sep	Project design day	RZR 123
11-Sep	Focus topic presentations; education outreach disscussion	RZR 123
18-Sep	Field collection day, Harris Gully Natural Area	HGNA
25-Sep	In class workday,	RZR 123
2-Oct	Visit to MD Anderson site	MDA
9-Oct	MD Anderson field day, Meet David Renninger	MDA
16-Oct	In class workday	RZR 123
23-Oct	Meet with Jed Alpaca; visit Hermann park prairie site	HPP
30-Oct	Hermann Park prairie field collection day	HPP
6-Nov	In class workday, prep for presentation	RZR 123
13-Nov	Southern Plains and Prairie conference presentation	HZI
20-Nov	Field trip	RZR 123
27-Nov	Thanksgiving (no class)	
4-Dec	Final community presentations, papers due	RZR 123

Grading:

Grades will be calculated out of 500 points. Grades will be distributed as follows: ≥90% A, 80-89% B, 70-79% C, 60-69% D, ≤59% F.

Assignment	Points	% of final grade
Focus topic presentation	50	10%
Education/outreach	50	10%
Conference participation	100	20%
Final written report	200	40%
Class participation	100	20%
Total	500	100%

Disabilities:

Any student with a disability that requires accommodation is encouraged to speak with me within the first two weeks of the class. The student is additionally encouraged to contact the Director of Disabled Student Services in the Ley Student Center.

Honor code:

Collaboration with classmates is encouraged in this class. Any use of published and unpublished research, websites, or personal communication with experts needs to be clearly stated in presentations and in written documents. If you

have any questions about a potential violation about the Rice University Honor Code, please contact me.

Course Details:

Focus topic presentation (50 pts): Students will be divided up into teams that will be responsible for researching a specific topic related to the project. The focus topics will include local forbs (flowering plants), grasses, invasive plants, woody plants (shrubs and trees), and pollinators. The presentation will need to include a PowerPoint slide file with images (student photos or images from the web with proper citations) that will be helpful for species identification.

Education/outreach project (50 pts): Students will be required to participate in at least one education and outreach related activity. This activity may involve writing a blog post about a native species, or posting information on the Wild Rice biodiversity website (http://nathist.rice.edu/Wild_Rice/Main.html). Students can also participate in a local Houston conservation outreach event (these will be announced by the instructor during the course of the semester) or volunteer with an event or activity hosted by the Urban Conservation club. Students may also participate in a video tour project that is a partnership between Rice and the Garden Club of Houston.

Participation in Southern Plains and Prairies conference (100 pts):
Our class has been invited to present the class project to the annual Southern Plains and Prairies Conference to be held at the Houston Zoo in November. Everyone will contribute data from their group project to the presentation. Students not presenting are required to attend the presentation and are encouraged to stay for the conference on Friday afternoon.

Urban pocket prairie biodiversity project (200 points total):
Each group will be responsible for writing up a final report (150 pts) based on the data they collected on their topic from the three restoration sites. This final document should include all of the data from the sites or on the specific focus topic (depending on how we decide to break up group assignment) as well as an analysis of that data between sites. The written document should also include habitat management recommendations for the Harris Gully Natural Area that will assist future site restoration for the benefit of pollinators. An overview of the project will also be presented on the last day of class to Rice's arboretum committee and community partners (50pts). Students that did not participate in the prairie conference will need to participate in this final presentation. All students are required to attend.

Graduate student projects (200 pts): Graduate students will be expected to attend at least one of the field days; however, graduate student will be carrying out an independent research project. These projects will have students working with either the City of Houston Parks or the Memorial Park Conservancy collecting and generating data for conservation management projects. Graduate students taking the course need to meet with me the first day of class to get their assignment.